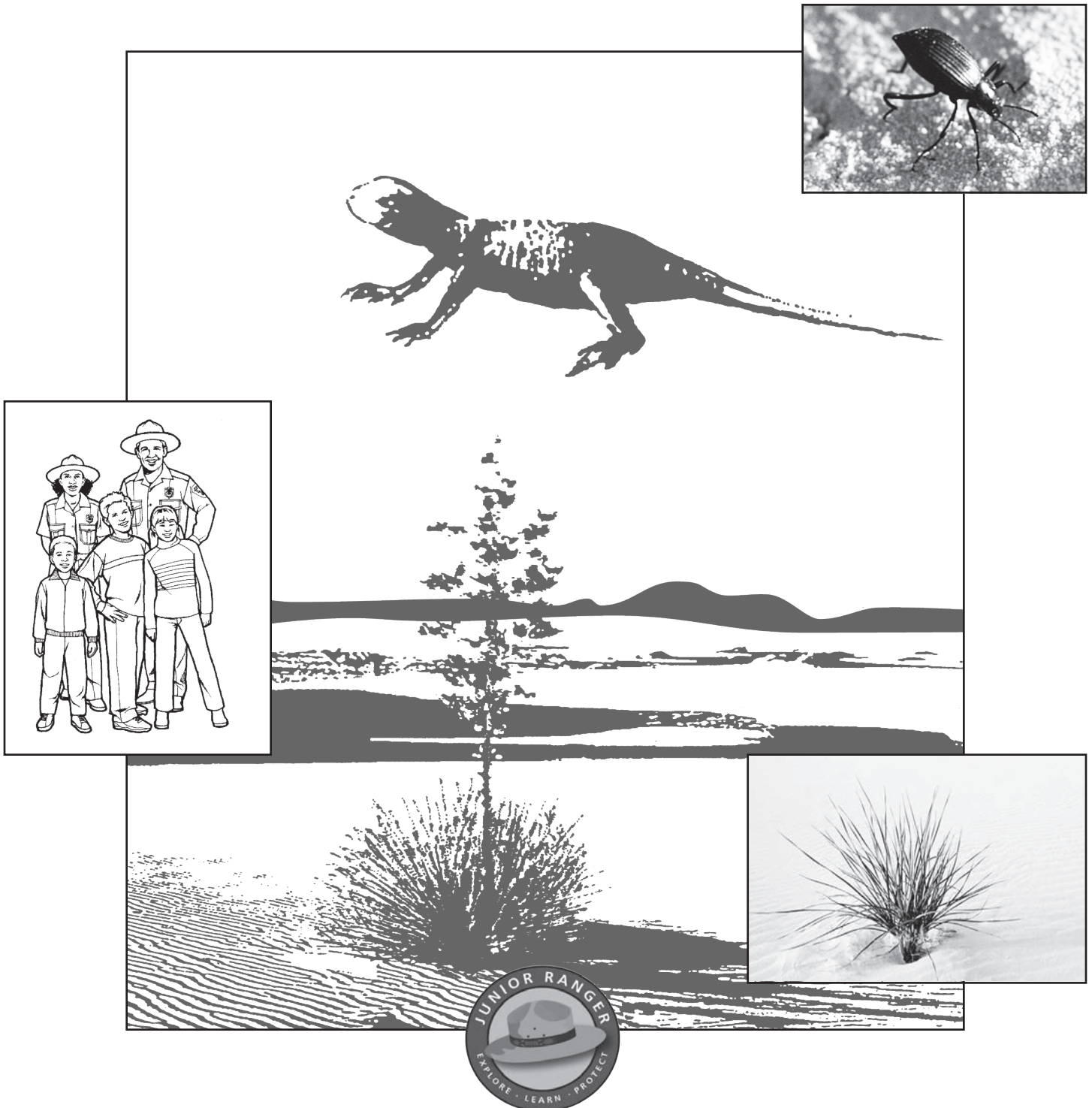




## Junior Dunes Ranger Activity Book



# White Sands National Monument

## Junior Dunes Ranger



## To become a Junior Dunes Ranger

Do the required activities with the symbol of your age group.

When you are finished, please return to the visitor center to share your book with a park ranger. You will receive a badge or patch, certificate and become a Junior Dunes Ranger.



### Lizard (age 6 to 8)

There are many different lizards that live at White Sands but our most famous one is the bleached earless lizard. He likes to run fast on the bright white sand and cannot be seen easily because he is the same color as the sand. When you find one of the lizards, please say, “hello” but don’t chase him or pick him up.



### Roadrunner (age 9 to 13)

Roadrunners at White Sands live near the park entrance where they find lots of insects, scorpions, lizards, and snakes! Roadrunners run to chase their prey and to escape predators, but in a pinch they will fly short distances. You might see this very smart bird near the visitor center.



### Coyote (age 14 and up)

Coyotes at White Sands live near the edge of the dunefield, and they have light brown to beige colored coats. They are called “song dogs” because they howl and yip. Coyotes live in packs of 6 to 10 animals. The entire pack cares for coyote babies (called pups). You probably won’t see coyotes but look for their tracks and listen for their songs!

Parents: This is a family program so feel free to help your aspiring Junior Ranger. We hope that your whole family learns about the park. We welcome your comments and suggestions.

## First Things First

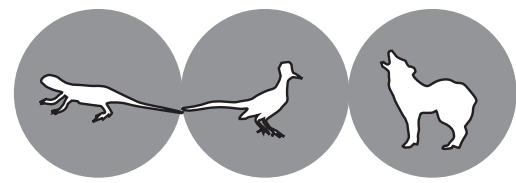
What I would like to do and see

---

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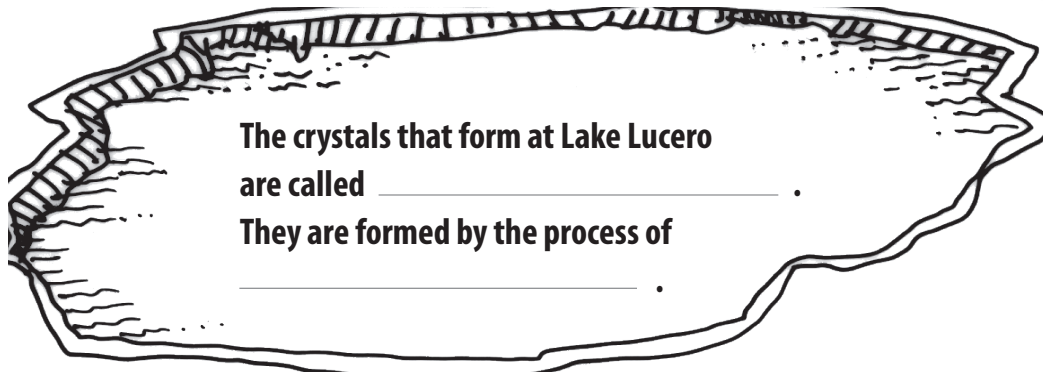
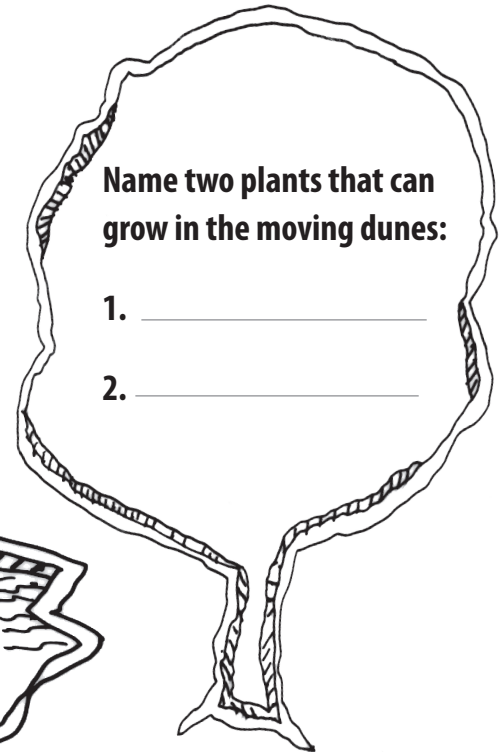
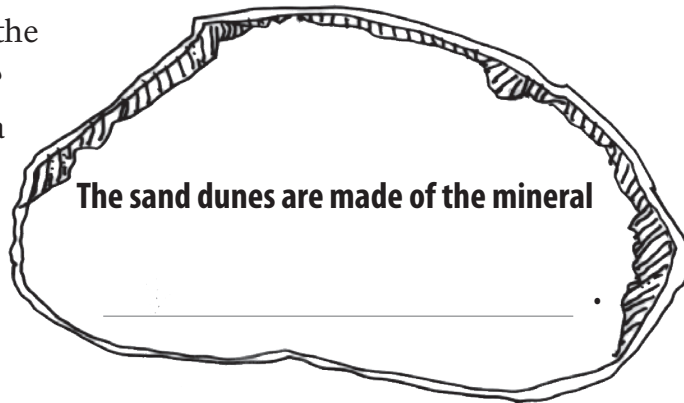
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# Visitor Center Starter



Watch the orientation video, and then tour the exhibits.

Can you answer the questions below?  
(Feel free to ask a ranger for help.)



## Hike-a-Trail Field Notes

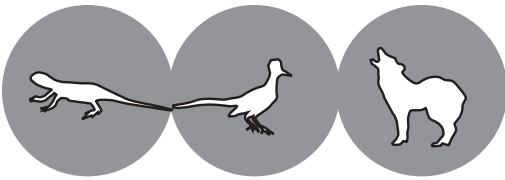
Check the one you hike!

Playa Trail ☐ Dune Life Nature Trail ☐ Interdune Boardwalk ☐ Alkali Flat Trail ☐ Backcountry Camping Loop ☐

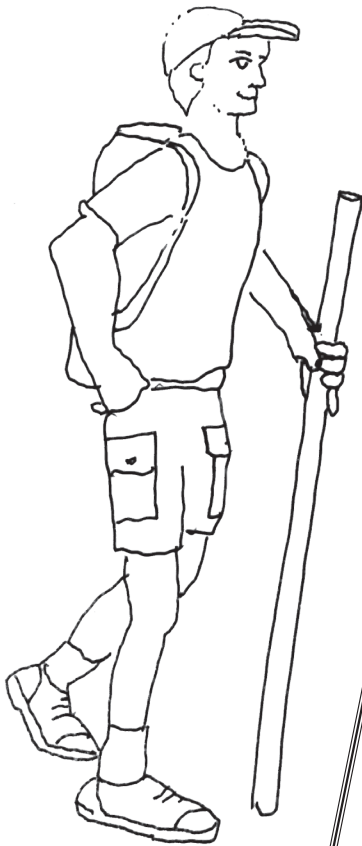
What does the sand look and feel like? \_\_\_\_\_

Describe the plants you see: \_\_\_\_\_

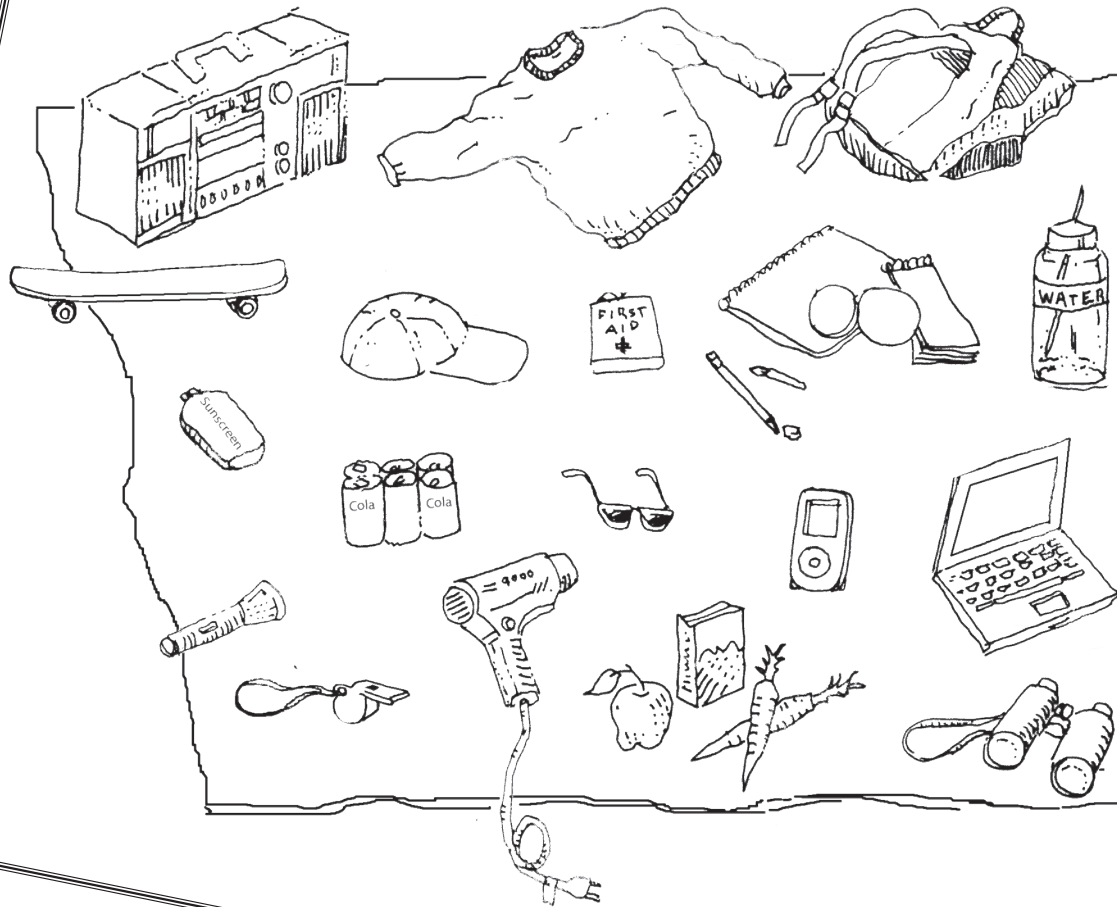
Describe the sounds you hear: \_\_\_\_\_



# Desert



**Pack for a Desert Hike**  
Help Maria pack the right things for her hike. Circle the things she should pack and X the things she should NOT pack.

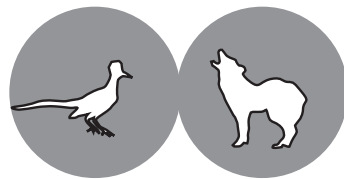


## Word List for puzzle

alone  
sunscreen  
walk  
lost  
plants  
animals  
respect  
gallon  
adult  
wait  
water  
thirsty  
visitor

What should everyone take on a hike  
at White Sands? \_\_\_\_\_

# Safety!



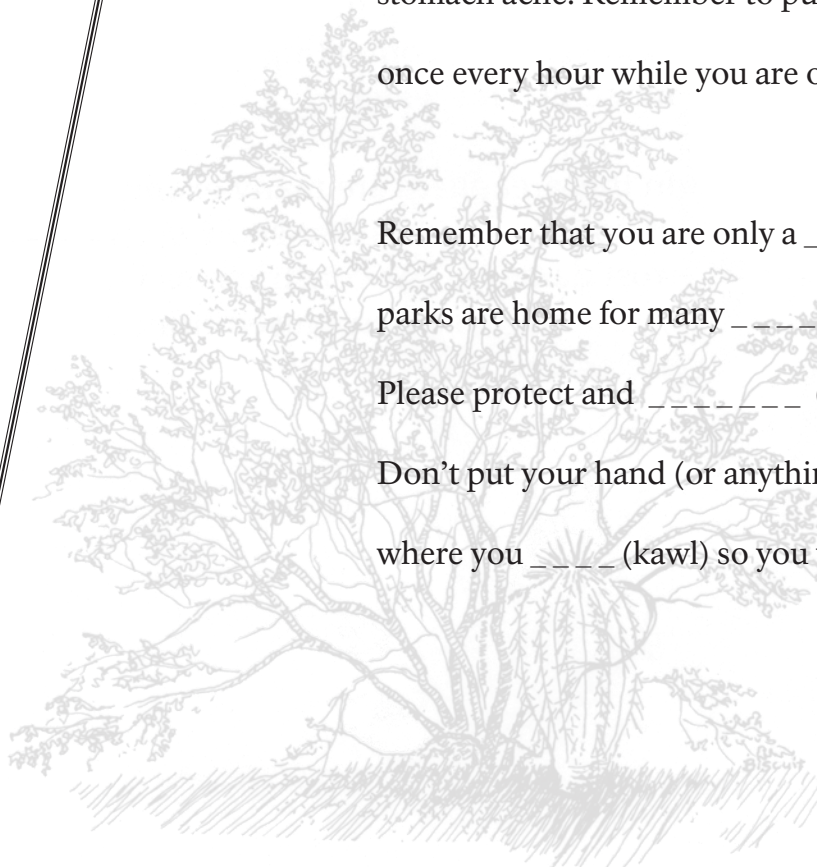
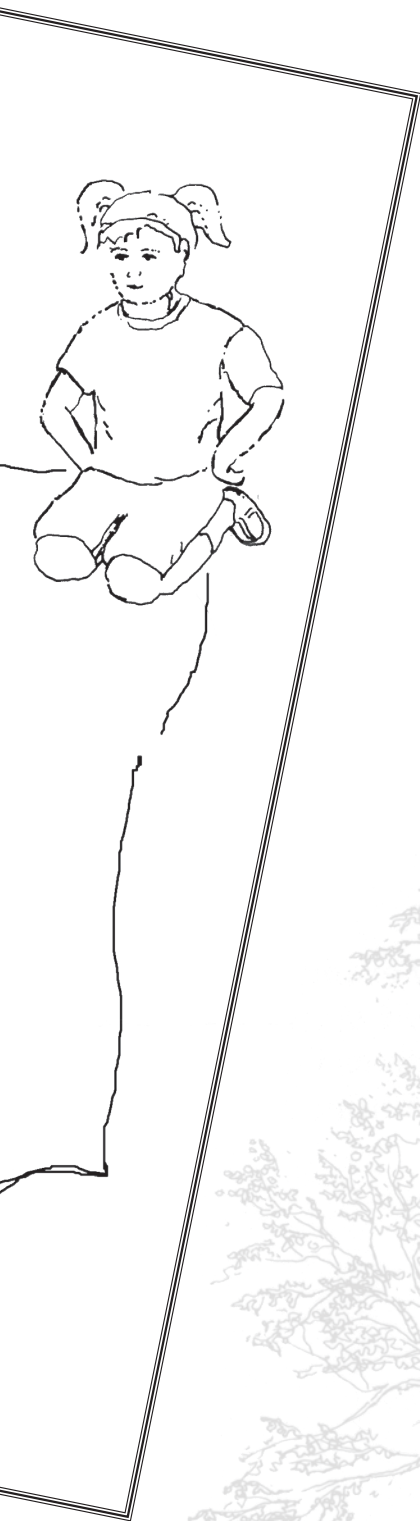
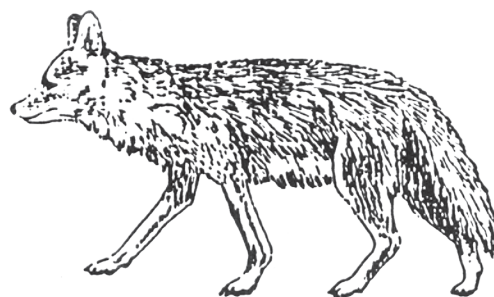
Never go anywhere \_\_\_\_\_ (naleo). Always take an \_\_\_\_\_ (tulda) with you. Be sure to always keep within sight of the adults, so they won't get \_\_\_\_\_ (sotl). If you get lost, STOP! Take a few calming breaths, sit down and \_\_\_\_\_ (tiwa) for help to arrive.

Be sure to fill up your \_\_\_\_\_ (etraw) bottle before you leave the visitor center. There is no drinking water in the dunes. Take at least one \_\_\_\_\_ (onlga) of water for each person. Don't wait until you are \_\_\_\_\_ (rysihtt) to take a drink. It is important to eat something while you are drinking your water so you won't get a stomach ache. Remember to put on your \_\_\_\_\_ (uscnesre) once every hour while you are outside.

Remember that you are only a \_\_\_\_\_ (tvrizio) here. The national parks are home for many \_\_\_\_\_ (apsnlt) and \_\_\_\_\_ (mailnsa).












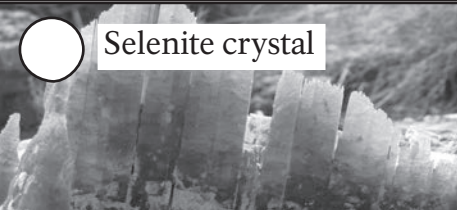
Please protect and \_\_\_\_\_ (ecspetr) the privacy of the animals.












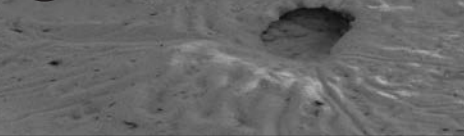


Don't put your hand (or anything else) where you can't see. Be careful where you \_\_\_\_\_ (kawl) so you will not step on a growing plant.

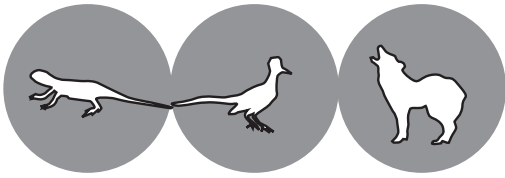




# Scavenger Hunt

<div data-bbox="89 478 440 604">    </div> <div data-bbox="110 636 516 709"> <input checked="" type="checkbox"/> Check as you find these         </div>	<div data-bbox="565 478 797 604">   </div> <div data-bbox="570 636 862 709">           Follow-up Questions         </div>	<div data-bbox="1057 478 1182 604">  </div> <div data-bbox="1057 615 1507 709">           Observations (location, appearance, weather)         </div>
<div data-bbox="110 741 180 814"> <input type="checkbox"/> </div> <div data-bbox="191 751 293 793">           Lizard         </div> 	What do you think the lizard is doing?	
<div data-bbox="110 951 180 1024"> <input type="checkbox"/> </div> <div data-bbox="191 961 293 1003">           Yucca         </div> 	How tall do you think it is?	
<div data-bbox="110 1161 180 1234"> <input type="checkbox"/> </div> <div data-bbox="191 1171 326 1213">           Pedestal         </div> 	What animals might live here?	
<div data-bbox="110 1371 180 1444"> <input type="checkbox"/> </div> <div data-bbox="191 1381 391 1423">           Ripple marks         </div> 	What is the cause of the ripples?	
<div data-bbox="110 1581 180 1654"> <input type="checkbox"/> </div> <div data-bbox="191 1591 293 1633">           Raven         </div> 	What does this bird eat?	
<div data-bbox="110 1791 180 1864"> <input type="checkbox"/> </div> <div data-bbox="191 1801 418 1843">           Selenite crystal         </div> 	Describe what you see.	

<div>    </div> <div> <input checked="" type="checkbox"/> Check as you find these         </div>	<div>   </div> <div>Follow-up Questions</div>	<div>  </div> <div>Observations (location, appearance, weather)</div>
<div> <input type="checkbox"/> Cottonwood tree            </div>	Trees need water. Where does this tree get its water?	
<div> <input type="checkbox"/> Tracks            </div>	Draw the track that you find.	
<div> <input type="checkbox"/> Flowering plant            </div>	Does it have flowers? What color?	
<div> <input type="checkbox"/> Insect            </div>	Why is it here?	
<div> <input type="checkbox"/> Interdune area            </div>	What animals might live here?	
<div> <input type="checkbox"/> Burrow            </div>	Who do you think lives here?	
<div> <input type="checkbox"/> Dune without prints            </div>	Why aren't there prints here?	
<div> <input type="checkbox"/> Park ranger            </div>	What kinds of jobs do park rangers do?	



# *Nature Manners*

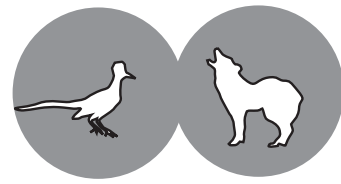
We practice good manners at the dinner table when we eat. We are courteous to our friends, parents, and teachers as we come together each day. There are also manners we use outside in nature and in national parks and other natural areas. Please set a good example with your good manners. Cross out the bad manners and circle the good ones.





# GEOLOGY

## The White Sands Story



Use the word list at the bottom of the page to fill in the blanks.

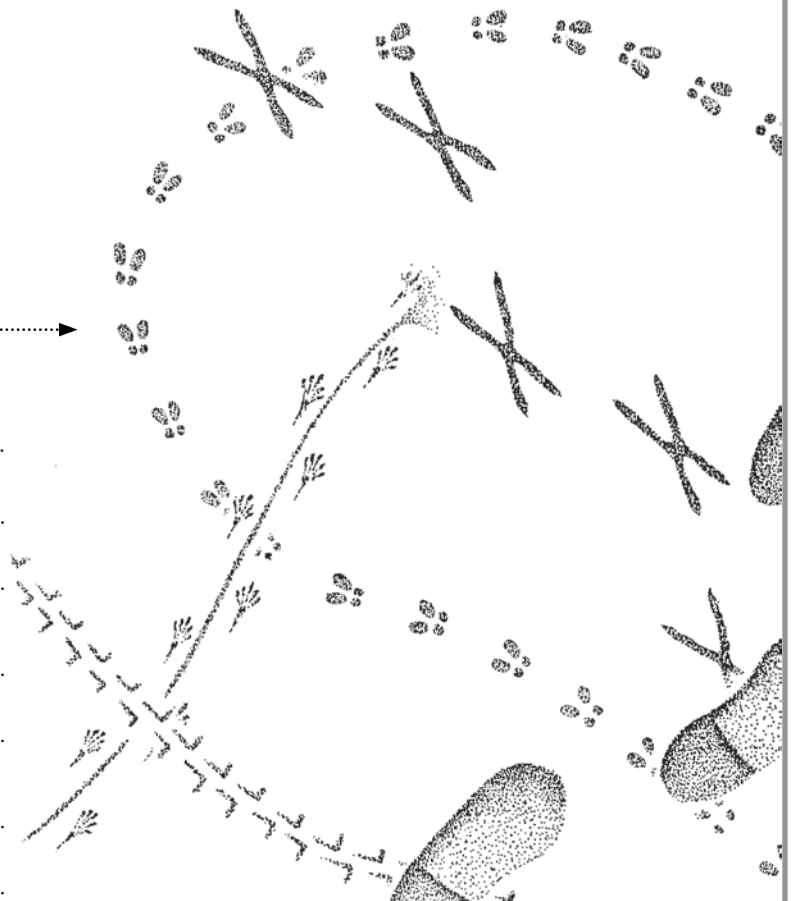
White Sands National Monument is so big that it can be seen from space! At \_\_\_\_\_ square miles, it is the largest gypsum dunefield in the world. How did all of this gypsum get here? A long, time ago (even before T-Rex was around), this area was covered by a very shallow and salty sea called the \_\_\_\_\_. At the bottom of this sea there were gypsum deposits. Gypsum is a type of salt. The salt came from the tropical seawater. After the sea dried up, the earth's crust \_\_\_\_\_. Certain parts of the land were pushed up to form \_\_\_\_\_. The other parts dropped down to create a flat spot between the mountains. Today, we call this flat spot the \_\_\_\_\_. The mountains around us are called the Sacramento and San Andres mountains. You can find the gypsum from the sea floor high up in these mountains!

Gypsum is a water soluble mineral, which means it dissolves in water just like when you put sugar in Kool Aid. The sugar disappears or dissolves into the water and Kool Aid mix. When it rains in the mountains, gypsum dissolves in the rain water and is carried down to the lowest point in the basin known as \_\_\_\_\_. All of the hot weather in the basin dries up the water and the gypsum that was carried down the mountain reappears in the form of \_\_\_\_\_.

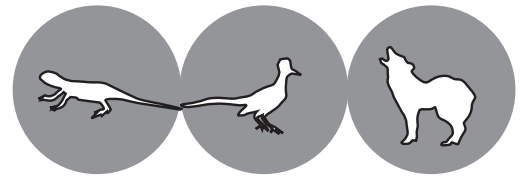
Selenite is a different form of gypsum like ice is a different form of water. Selenite is so soft that you can scratch it with your fingernail and because of this it quickly breaks apart. Things like \_\_\_\_\_ and ice break the selenite crystals into smaller and smaller pieces until they are small grains of \_\_\_\_\_. Wind picks up these small grains of sand and blows them into big piles of gypsum sand. So many piles in fact, that they form the world's largest gypsum dunefield which is protected by \_\_\_\_\_.

sand  
Permian Sea  
mountains  
Tularosa Basin  
White Sands National Monument

275  
Lake Lucero  
pulled apart  
selenite  
wind



# Hidden Critters



Look closely and color in the 10 hidden animals. Then answer the questions below.



## Word List

cactus wren  
blacktail jackrabbit  
bleached lizard  
kit fox

### Who am I?

1. I have large ears and a large bushy tail.
2. In North America, I am the smallest canine (dog family).
3. I make my home in the plant pedestals and there are several entrances.

I am a \_\_\_\_\_.

### Who am I?

1. I can be seen hopping along early in the morning and in the evening.
2. My large ears help me hear better and also help keep me cool.
3. I get my name from the color of my tail.

I am a \_\_\_\_\_.

### Who am I?

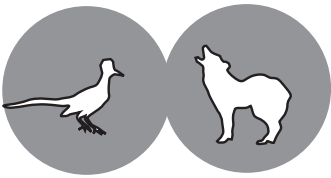
1. I eat insects.
2. I have a curved beak.
3. I make a football-like nest in the branches of the cholla cactus.

I am a \_\_\_\_\_.

### Who am I?

1. The color of my skin matches the sand.
2. I eat small insects.
3. I really have ears, they're covered by skin to keep the sand out when I burrow.

I am a \_\_\_\_\_.



# Plant Power

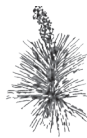
Many of the plants in the Chihuahuan Desert are used by people. Can you match each plant with the product that is made from it? Hint: Look for clues in the desert plant garden in front of the visitor center or ask a ranger.

## PLANTS



Ocotillo

Cottonwood



Soaptree Yucca

Prickly Pear



## PRODUCTS



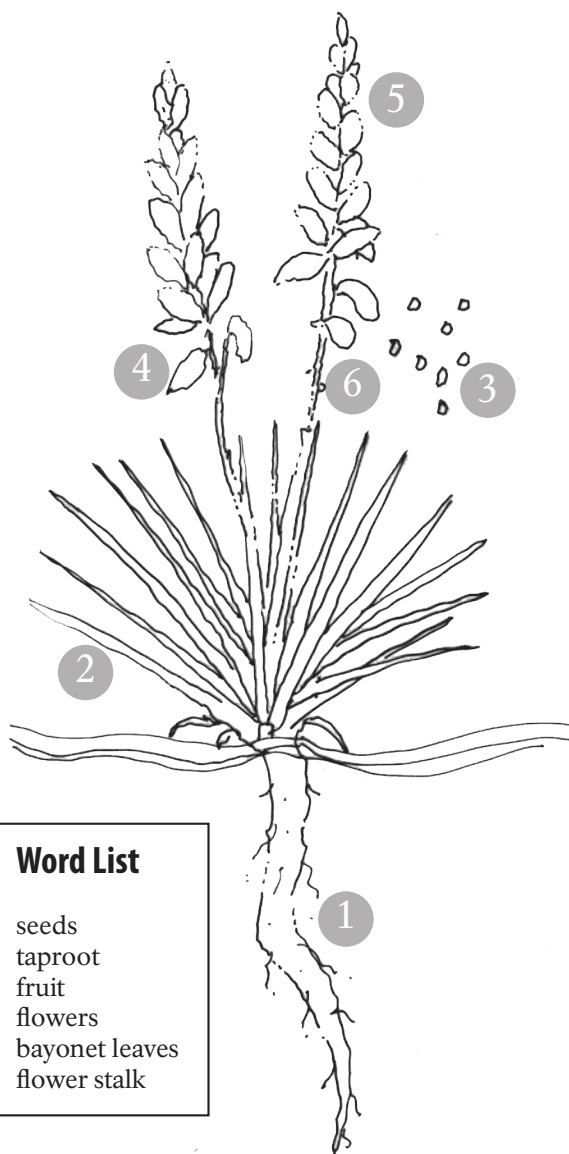
Nopalitos

blood purifier



building materials

soap



### Word List

seeds  
taproot  
fruit  
flowers  
bayonet leaves  
flower stalk

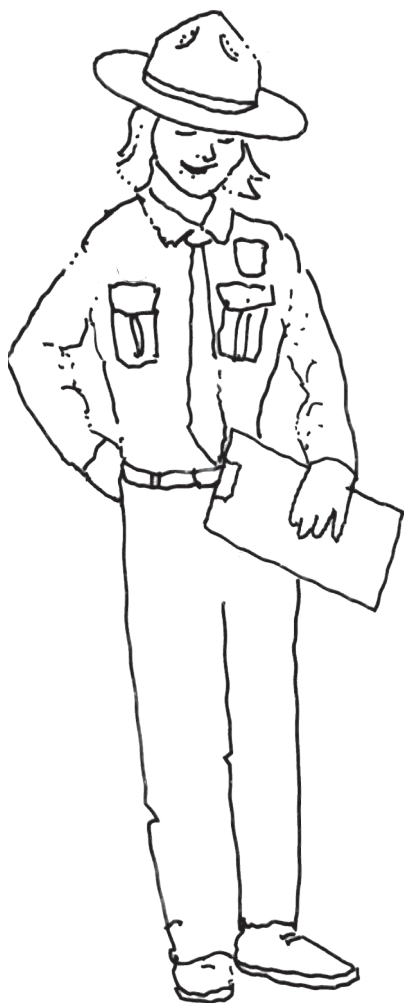
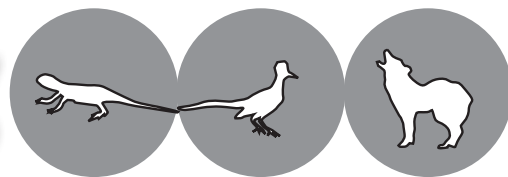
## The Soaptree Yucca

Use these clues to correctly identify the plant parts. Fill in the blanks.

- 1 This part of the yucca grows deep and moves food and water through this underground chute. This plant can't survive without its \_\_\_\_\_.
- 2 These are long, needle sharp, and bright green. Native Americans weave these into baskets, they are \_\_\_\_\_.
- 3 The dry pods are shaken loose by southwestern winds. The larvae of the pronuba moth feeds on the \_\_\_\_\_.
- 4 This part of the plant comes out after the flower; it is delicious to eat dried in the sun or roasted in a hot fire. We call them the \_\_\_\_\_.
- 5 This blooms during spring showers providing food for insects and moths. The yucca has beautiful white \_\_\_\_\_.
- 6 Shaped like a tall column these grow very fast. They help move water through the plant. This part of the yucca is called the \_\_\_\_\_.



# MEET A RANGER!



Name: \_\_\_\_\_

Job title: \_\_\_\_\_

What do you do as a ranger? \_\_\_\_\_

\_\_\_\_\_

How long have you worked at White Sands? \_\_\_\_\_ for the NPS? \_\_\_\_\_

What are other parks where you have worked? \_\_\_\_\_

\_\_\_\_\_

Why did you become a park ranger? \_\_\_\_\_

\_\_\_\_\_

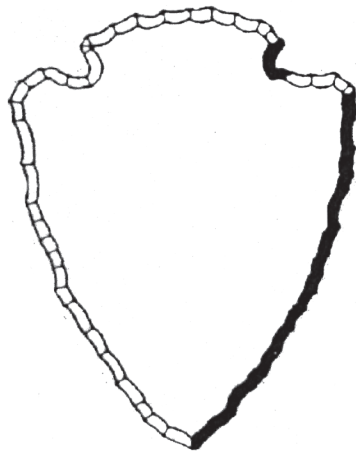
What is your favorite part of your job? \_\_\_\_\_

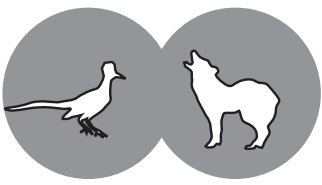
\_\_\_\_\_

## The Arrowhead

The National Park Service Arrowhead was first used on uniforms and signs in 1952. The mountains and water represent the scenery and recreation. The sequoia tree and bison represent plants and wildlife.

The arrowhead represents the historical and archeological values. Find an arrowhead and complete the drawing.



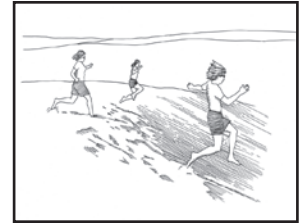


# CULTURAL HISTORY

Match the picture with the description.

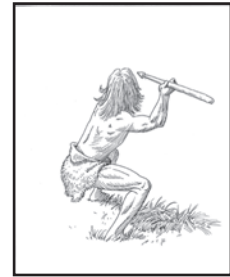
(Tip: Look at the exhibit to your left as you walk into the theater.)

**A long time ago, small groups of hunters followed their prey into the grassy swamps in the Tularosa Basin. What did they hunt?**



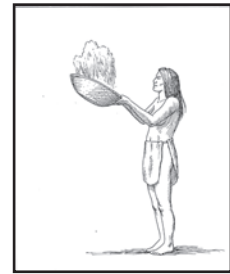
Run barefoot!

**The Jornada Mogollon people farmed corn and beans around the edge of the basin. They also gathered wild plants. What plants did they gather?**



Camels, mammoths, and ancient bison.

**The dune field became a national monument in 1933. What is one of the things visitors like to do here?**



Indian rice grass, yucca, and agave.

**The Mescalero Apache arrived in the area by the 1500s but were soon under siege from newcomers who wanted the land. Who did they fight?**




Spanish and other European Americans.

**Spanish, Mexicans, and Euro-American settlement of the Tularosa Basin began in the early 1860s with the establishment of the communities of La Luz and Tularosa. How did they make a living?**



Farmed and ranched.

[illegible]

Find a spot outside. Ask your friends and family to join you. Close your eyes and listen for one minute. Then record what you hear below. When you get home, try again.

[illegible]

# White Sands National Monument



Activities developed by Kathy Denton

Edited by Abby Mogollón

Designed by Jackson Boelts

Photography by the National Park Service

Illustrations by Jackson Boelts

Published by Western National Parks Association

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## Junior Dunes Ranger Pledge

I, \_\_\_\_\_,  
promise to learn all I can about  
national parks and what makes  
each one special; To learn  
and follow all safety rules; To  
respect and help protect the  
environment and all the parts  
of it (both living and non-  
living) for today and always;  
To become a Junior Ranger  
in other national parks.

### Become a WebRanger

As a WebRanger, you'll learn what Park Rangers do to help protect our natural resources and our cultural heritage.

You'll also learn how Park Rangers observe and discover new things about our national parks —things to share with your friends. [www.nps.gov/webrangers/](http://www.nps.gov/webrangers/)

### On the Go?

Mail completed books to:

WHSA

PO Box 1086

HAFB, NM 88330-1086

### Choose one:

Badge ☐

Patch ☐

**WESTERN  
NATIONAL PARKS  
ASSOCIATION**